

# An Assessment of Hawaii QUEST Medical Plans Performance Using Medicaid HEDIS Measures, 1996-1997

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## MEDICAID HEDIS Quality of Care Performance Measurements

### What is Medicaid HEDIS?

HEDIS (Health Plan Employer Data and Information Set) is the performance measurement system for health plans developed by the National Committee for Quality Assurance (NCQA). The NCQA is an organization which accredits health plans as well as other types of health care organizations. The number of NCQA accredited managed care plans now exceeds 330, covering three quarters of all HMO enrollees or roughly 45 million Americans. HEDIS data is collected by more than 90 percent of all health plans. *Medicaid HEDIS* is an adaptation of *HEDIS 2.0/2.5* for use by health plans with Medicaid managed care programs. In 1997, *Medicaid HEDIS* was incorporated into *HEDIS 3.0*. Therefore, QUEST plans will report their HEDIS data for the 1998 fiscal year in *HEDIS 3.0* format.

### What is measured in Medicaid HEDIS?

Health plan performance related to the following seven (7) areas is measured:

- Membership;
- Utilization;
- Quality of Care;
- Access to Care;
- General Plan Management;
- Financial Performance; and
- Satisfaction with Care.

Health plan performance for membership, utilization, quality of care, and access measures are reported as tables. Membership and utilization measures relate to all members. Generally, quality of care measures apply to members continuously enrolled for 12 months with a maximum lapse in coverage of 30 days. Access to care measurements relate to the availability of services. Most general plan management measures require health plans to describe specific services.

### What measures are the QUEST plans required to report?

The QUEST medical plans are required to report measures related to membership, utilization, quality of care, access to care, and general plan management. Since all QUEST plans are required to submit financial statements, and an annual customer satisfaction survey is performed by the Med-QUEST Division (MQD), plans are not required to report financial performance and satisfaction with care as part of their *Medicaid HEDIS* report.

### Why is the DHS requiring QUEST plans to report Medicaid HEDIS data?

*Medicaid HEDIS* has standardized data collecting and reporting requirements and its measures are clearly defined. It allows the evaluation of a plan's performance over time, identification of areas which should be improved, quantitative measurement of strategies a plan uses to improve outcomes, and comparison of similar elements across plans.

### What should be considered in reviewing the QUEST Medicaid HEDIS report?

The data presented is an aggregate of data submitted by individual QUEST medical plans. Since *Medicaid HEDIS* specifications allow for data collection using various specified methodologies, the QUEST plans may select alternative methodologies to report the same measure. Therefore, differences in data sources and data collecting methodologies may affect the validity of the aggregate data presented. Additionally, while the QUEST plans reviewed their individual reports and verified the data prior to submission, the Department does not audit each plan's data (NCQA does not require it either). However, the Department executes a protocol to examine the contents for accuracy and consistency.

*Medicaid HEDIS* specifications require 12 continuous months of enrollment with one lapse in coverage not to exceed 30 days for most of the quality of care measures. Therefore, the quality of care measures do not reflect the experience of a plan's total membership, only that of members who met the definition of "continuously enrolled."

*Medicaid HEDIS* cautions that data from health plans with "small numbers" for a measure may be of questionable statistical validity.

### What are the Medicaid HEDIS measures being reported?

The QUEST plans reported a total of 37 mandatory measures. The collection of these measures is available from the Med-QUEST Division. This report will focus on the following twelve (12)

\*Department of Human Services  
Med-QUEST Division  
Medial Standards Branch and  
Health Care Management Branch  
Acknowledgement: We thank Alan Matsunami  
for helpful comments

## Benzamycin®

(erythromycin-benzoyl peroxide topical gel)

Topical gel: erythromycin (3%), benzoyl peroxide (5%)

For Dermatological Use Only - Not for Ophthalmic Use.

Reconstitute Before Dispensing

Brief Summary: See full prescribing information for complete product information.

### INDICATIONS AND USAGE

BENZAMYCIN® Topical Gel is indicated for the topical treatment of acne vulgaris.

### CONTRAINDICATIONS

BENZAMYCIN® Topical Gel is contraindicated in those individuals who have shown hypersensitivity to any of its components.

### WARNINGS

Pseudomembranous colitis has been reported with nearly all antibacterial agents, including erythromycin, and may range in severity from mild to life-threatening. Therefore, it is important to consider this diagnosis in patients who present with diarrhea subsequent to the administration of antibacterial agents.

Treatment with antibacterial agents alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of "antibiotic-associated colitis."

After the diagnosis of pseudomembranous colitis has been established, therapeutic measures should be initiated. Mild cases of pseudomembranous colitis usually respond to drug discontinuation alone. In moderate to severe cases, consideration should be given to management with fluids and electrolytes, protein supplementation and treatment with an antibacterial drug clinically effective against *C. difficile* colitis.

### PRECAUTIONS

**General:** For topical use only; not for ophthalmic use. Concomitant topical acne therapy should be used with caution because a possible cumulative irritancy effect may occur, especially with the use of peeling, desquamating or abrasive agents. If severe irritation develops, discontinue use and institute appropriate therapy.

The use of antibiotic agents may be associated with the overgrowth of nonsusceptible organisms including fungi. If this occurs, discontinue use and take appropriate measures.

Avoid contact with eyes and all mucous membranes.

**Information for Patients:** Patients using BENZAMYCIN® Topical Gel should receive the following information and instructions:

1. This medication is to be used as directed by the physician. It is for external use only. Avoid contact with the eyes, nose, mouth, and all mucous membranes.

2. This medication should not be used for any disorder other than that for which it was prescribed.

3. Patients should not use any other topical acne preparation unless otherwise directed by physician.

4. Patients should report to their physician any signs of local adverse reactions.

5. BENZAMYCIN® Topical Gel may bleach hair or colored fabric.

6. Keep product refrigerated and discard after 3 months.

### CARCINOGENESIS, MUTAGENESIS AND IMPAIRMENT OF FERTILITY

Data from a study using mice known to be highly susceptible to cancer suggests that benzoyl peroxide acts as a tumor promoter. The clinical significance of this is unknown.

No animal studies have been performed to evaluate the carcinogenic and mutagenic potential or effects on fertility of topical erythromycin. However, long-term (2-year) oral studies in rats with erythromycin ethylsuccinate and erythromycin base did not provide evidence of tumorigenicity. There was no apparent effect on male or female fertility in rats fed erythromycin (base) at levels up to 0.25% of diet.

**Pregnancy, Teratogenic Effects: Pregnancy CATEGORY C:** Animal reproduction studies have not been conducted with BENZAMYCIN® Topical Gel or benzoyl peroxide.

There was no evidence of teratogenicity or any other adverse effect on reproduction in female rats fed erythromycin base (up to 0.25% diet) prior to and during mating, during gestation and through weaning of two successive litters.

There are no well-controlled trials in pregnant women with BENZAMYCIN® Topical Gel. It also is not known whether BENZAMYCIN® Topical Gel can cause fetal harm when administered to a pregnant woman or can affect reproductive capacity.

BENZAMYCIN® Topical Gel should be given to a pregnant woman only if clearly needed.

**Nursing Women:** It is not known whether BENZAMYCIN® Topical Gel is excreted in human milk after topical application.

However, erythromycin is excreted in human milk following oral and parenteral erythromycin administration. Therefore, caution should be exercised when erythromycin is administered to a nursing woman.

**Pediatric Use:** Safety and effectiveness of this product in pediatric patients below the age of 12 have not been established.

### ADVERSE REACTIONS

In controlled clinical trials, the total incidence of adverse reactions associated with the use of BENZAMYCIN® Topical Gel was approximately 3%. These were dryness and urticarial reaction.

The following additional local adverse reactions have been reported occasionally: irritation of the skin including peeling, itching, burning sensation, erythema, inflammation of the face, eyes and nose, and irritation of the eyes. Skin discoloration, oiliness and tenderness of the skin have also been reported.

### DOSEAGE AND ADMINISTRATION

BENZAMYCIN® Topical Gel should be applied twice daily, morning and evening, or as directed by a physician, to affected areas after the skin is thoroughly washed, rinsed with warm water and gently patted dry.

### How Supplied and Compounding Directions:

Size (Net Weight)	NDC 0066-	Benzoyl Peroxide Gel	Active Erythromycin Powder (in Plastic Vial)	Ethyl Alcohol (70%) To Be Added
11.65 grams (as dispensed)	0510-05	10 grams	0.4 grams	1.5 mL
SAMPLE				
23.3 grams (as dispensed)	0510-23	20 grams	0.8 grams	3 mL
46.6 grams (as dispensed)	0510-46	40 grams	1.6 grams	6 mL

**Prior to dispensing, tap vial until powder flows freely. Add indicated amount of ethyl alcohol (70%) to vial (to the mark) and immediately shake to completely dissolve erythromycin.** Add this solution to gel and stir until homogeneous in appearance (1 to 1½ minutes). BENZAMYCIN® Topical Gel should then be stored under refrigeration. Do not freeze. Place a 3-month expiration date on the label.

**NOTE:** Prior to reconstitution, store at room temperature between 15° and 30°C (59° - 86°F).

After reconstitution, store under refrigeration between 2° and 8°C (36° - 46°F).

Do not freeze. Keep tightly closed. Keep out of the reach of children.

**Caution:** Federal (U.S.A.) law prohibits dispensing without prescription.

U.S. Pat. Nos. 4,387,107 and 4,497,794.

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Rev. 2/96

IN-7121P

### References:

1. Shalita AR et al. A Multicenter, Double-Blind Study of the Combination of Erythromycin/Benzoyl Peroxide, Erythromycin Alone, and Benzoyl Peroxide Alone in the Treatment of Acne Vulgaris. *Cutis*. 1992;49:1-4.



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measures which are key to assessing QUEST's performance in providing quality care:

- Membership by Age and Sex;
- Childhood Immunization;
- Cervical Cancer Screening;
- Cesarean Section;
- Diabetic Retinal Exam;
- Inpatient Acute Hospital Care;
- Emergency Room Visits;
- Live Births;
- Mental Health and Chemical Dependency Services;
- Outpatient Drug Utilization;
- Low Birthweight; and
- Care Access: Utilization of Primary Care Providers by Children.

In addition, a description of how managed care is being provided by the QUEST medical plans is presented. The description includes four key programs in the delivery of managed care services:

- Case Management;
- Utilization Management;
- New Member Orientation/Education; and
- Standards for Waiting Times.

Overall, this report focuses primarily on data submitted by QUEST medical plans for fiscal 1997. However, *Medicaid HEDIS* data for fiscal 1996 is included, when available, to note changes in QUEST performance over time. HEDIS measures were reported in fiscal 1995 but have been excluded for comparison in most instances due to the following reasons:

- QUEST began on August 1, 1994. Therefore, fiscal 1995 for QUEST was only 11 months in duration;
- In the initial months of QUEST, there were many plan changes and significant confusion among providers as to which plan should be receiving and reporting a patient's encounter data;
- *Medicaid HEDIS* measures were not available. Hence, the plans reported a combination of *HEDIS 2.0/2.5* and specific state measures, which in many cases, were not directly comparable with *Medicaid HEDIS* measures.

## Membership by Age and Sex

### Why is this important?

This measure answers general questions about the people who are receiving their health care services through QUEST.

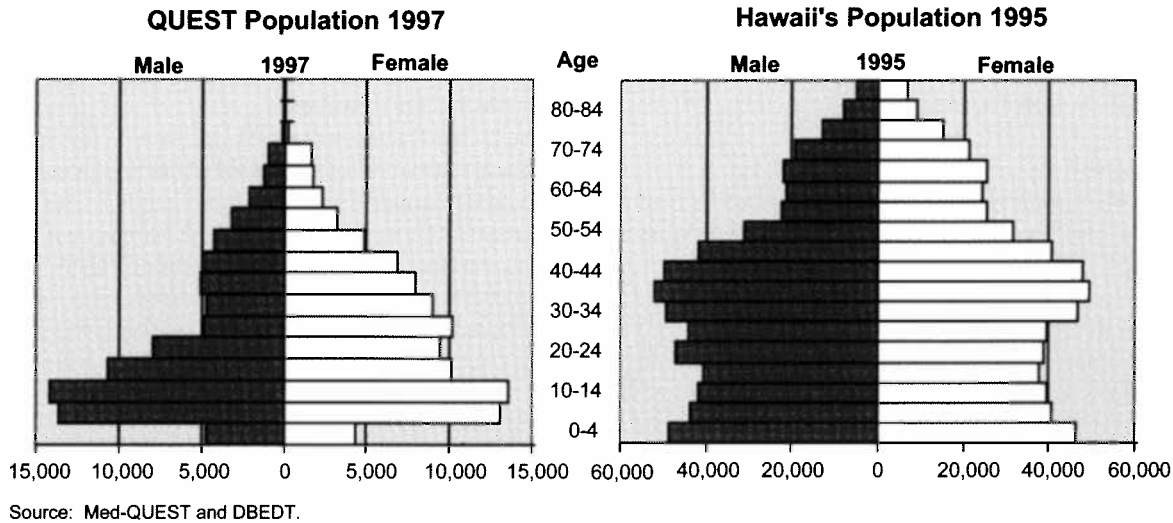
### What was measured?

The total number of unduplicated QUEST enrollees by age and sex, enrolled during any part of the report year from July 1, 1996 to June 30, 1997 was recorded.

### How did QUEST perform?

Enrollment in QUEST decreased from an average monthly membership of 155,420 in fiscal 1996 to 134,830 in fiscal 1997. The QUEST population in fiscal 1997 was also younger. The mean age of QUEST members dropped to 20.1 years in fiscal 1997 from 21.3 years in fiscal 1996. QUEST members remain predominantly children and adult females. Approximately 56 percent of total membership were children under 20 years of age.

**Chart 1**



The age and sex distribution of a population for a given fiscal year can be summarized graphically by a "population pyramid." A population pyramid displays the distribution of male and female members in different age-groups. Chart 1 shows QUEST's population structure in fiscal 1997, as compared to Hawaii's resident population in 1995. The QUEST population displays a skewed, classic "pyramid", with a large proportion of younger people, fewer middle-aged people, and far fewer elderly people. There is also a disproportionate number of middle-aged women.

In contrast, the Hawaii resident population structure resembled a bulging "pillar." This is a more mature population, with proportionately fewer young people (ages 0-24) contributing to the total. The middle-aged group (ages 25-54) is the dominant segment of this population structure while the near-elderly (ages 55-64) and elderly (ages 65 and over) appear rather significant before tapering off. The average age of Hawaii's resident population in 1995 was 34.5 years of age. Additionally, there were 102 males per 100 females in the same population. In comparison, there were only 95.6 males per 100 females in the QUEST population in fiscal 1997.

## Childhood Immunization

### Why is this important?

Immunization in the first two years of life is accepted as one of the most effective public health measures in preventing serious illnesses such as whooping cough, polio, measles, and hepatitis B. Unfortunately, studies have shown that low-income children are less likely to receive timely and adequate immunizations. In 1990, the Centers for Disease Control (CDC) reported that less than 50% of low-income inner city children were fully immunized by age two.

### What was measured?

The childhood immunization rate is the percentage of QUEST two-year olds who were enrolled in one plan for 12 months, and who had received appropriate immunizations by their second birthdays (A break in enrollment not to exceed 30 days was allowed).

### How did QUEST perform?

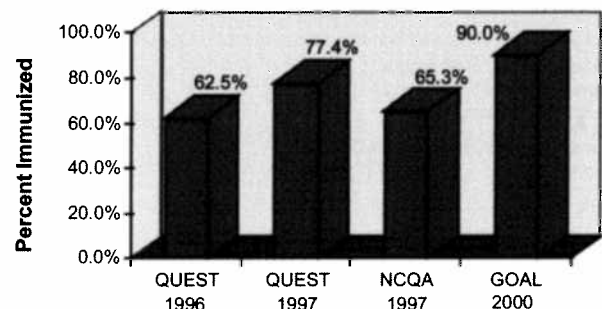
QUEST did very well compared to the previous fiscal year and to

rates reported in other studies. The Childhood Immunization Rate improved to 77.4 percent in fiscal 1997 from 62.5% in fiscal 1996. At this rate of improvement, QUEST should realize the "Healthy People 2000" goal of 90 percent Childhood Immunization Rate.

Recently, the NCQA released its first annual report on HEDIS measures, "The State of Managed Care Quality." This report collected information, voluntarily submitted by over 330 health plans throughout the United States, which participated in the NCQA's accreditation program. The NCQA reported that the national average rate of children who had received 4 DTP/DTaP (diphtheria-tetanus-pertussis), 3 polio (OPV/IPV), 1 MMR (measles-mumps-rubella), 1 Hib (H influenza type b), and 2 HepB (Hepatitis B) was 65.3% for the health plans which submitted data. Retrospective studies done in Hawaii on children entering kindergarten have shown that between 58-63% received the basic series by age 2.

**Chart 2**

## Childhood Immunization Rates



Source: Med-QUEST and NCQA.

## Cervical Cancer Screening

### Why is this important?

Nationally, more than 13,000 new cases of cervical cancer are diagnosed each year, and 4,800 women die of the disease annually.

Additionally, the rate of cervical cancer is typically higher among poor women and they are more likely to be diagnosed when the cancer is in advanced stages. Fortunately, cervical cancer is curable if detected early by regular check-ups and the use of the Papanicolaou (Pap) smear test. Thus, for Medicaid women, cervical cancer screening is very important and saves lives.

#### What was measured?

The cervical cancer screening rate is the percentage of women aged 16 to 64, enrolled in a medical plan for 12 months, who had at least one Pap smear during the past three years.

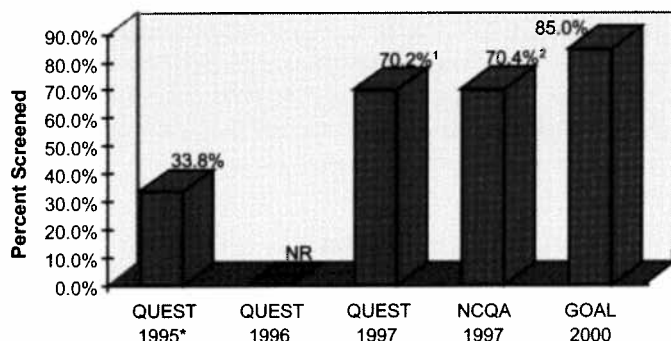
#### How did QUEST perform?

The QUEST medical plans did not report this measure in fiscal 1996. In fiscal 1995, the reported rate was 33.8 percent. This rate was for the first eleven (11) months of QUEST program and was reported by four (4) of the five (5) plans. Another shortcoming of the 1995 QUEST data was the plans did not have three years worth of data as required by the measure.

In fiscal 1997, the QUEST screening rate reported was 70.2 percent (women aged 16 to 64). This screening rate is compatible with a recently released NCQA study which reported a 70.4 percent national average for women aged 21 to 64 in participating health plans. The "Healthy People 2000" goal is to have 85 percent of all women receive a Pap smear every one to three years.

Chart 3

#### Cervical Cancer Screening Rates



\*Rate for 11 months and reported by 4 out of 5 QUEST plans.

<sup>1</sup>Women aged 16-64 years.

<sup>2</sup>Women aged 21-64 years.

NR: Not Reported.

Source: Med-QUEST and NCQA.

### Cesarean Section

#### Why is this important?

Cesarean (C)-sections are among the most frequent surgical procedures performed in the United States and both mother and neonate have a greater chance of complications than with vaginal birth. A C-section is normally unnecessary if vaginal delivery of the baby does not pose a serious health risk to the infant or mother. Hospital and physician services associated with C-section deliveries are more costly than vaginal deliveries. Therefore, the rate of C-section deliveries is an indicator of appropriate clinical management and quality of care.

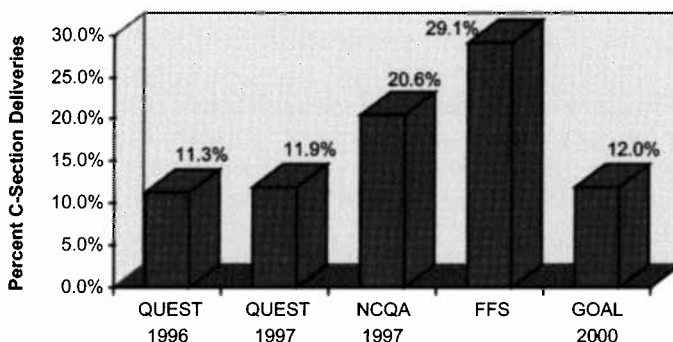
#### What was measured?

The C-section rate is the percentage of total QUEST deliveries resulting in live newborns which were C-section delivered in fiscal 1997.

#### How did QUEST perform?

The QUEST plans performed very well in this measure. In fiscal 1996 and fiscal 1997, the QUEST C-section rates were essentially unchanged at about 11 percent (see Chart 4). This rate is far lower than the NCQA's national average of 20.6 percent, and the national fee-for-service (FFS) rate of 29.1 percent. QUEST's fiscal 1996 and fiscal 1997 rates have actually exceeded the national health's established C-section rate of 12-15 percent by the year 2000.

Chart 4  
Cesarean Section Rates



Source: Med-QUEST and NCQA.

### Diabetic Retinal Exam

#### Why is this important?

Diabetes mellitus affects about 6.5 percent of Hawaii's population, and it is the leading cause of severe eye damage and adult blindness in the United States. However, blindness can be prevented if retinal changes are detected early, and treated appropriately with laser. Therefore, early intervention through effective screening is crucial in preserving the eye sight of individuals with diabetes.

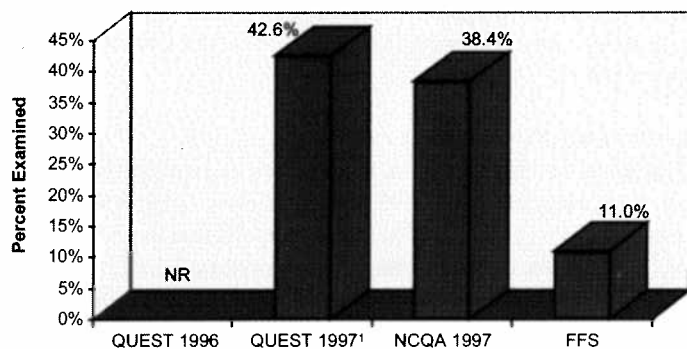
#### What was measured?

This was an optional measure for QUEST plans. However, two of the larger medical plans submitted data on this measure for fiscal 1997. The diabetic eye exam rate is the percentage of plan members with diabetes aged 31 to 64 years who received an ophthalmoscopic eye exam in fiscal 1997. Members in the plan must be enrolled continuously during the reporting period (allowing for one break in service, not to exceed 30 days).

#### How did QUEST perform?

In this measure, QUEST out-performed both the NCQA's national average and FFS rates (see Chart 5). The QUEST rate of 42.6 percent in fiscal 1997 indicates that the QUEST performance compares favorably with that of managed care in the private sector. QUEST plans did not report this measure in fiscal 1996.

**Chart 5**  
**Diabetic Retinal Exam**



<sup>1</sup>Optional Measure: Two primary plans reporting.  
NR: Not Reported.

Source: Med-QUEST and NCQA.

## Inpatient Acute Hospital Care

### Why is this important?

Inpatient acute hospital care is one of the most costly expenses of a health plan. It is a measure of a plan's performance in managing patient care.

### What was measured?

The total number of QUEST enrollees who received inpatient hospital care and the category of care they received (medical/surgical; maternity; and newborns) by age were measured. The total number of hospital days, days by category of care, and the average length of stay (ALOS) were also reported.

### How did QUEST perform?

Compared with the previous fiscal year, there were fewer total days and fewer inpatient discharges. This was consistent with the decrease in enrollment. However, the total ALOS and the ALOS for each category of care remained essentially the same (see Chart 6). The QUEST ALOS for total acute inpatients was 3.3 days in fiscal 1997. In contrast, the latest available statewide and national ALOS reported by the Healthcare Association of Hawaii for acute care hospitals in 1995 were 6.5 days and 5.7 days respectively.

## Emergency Room Visits

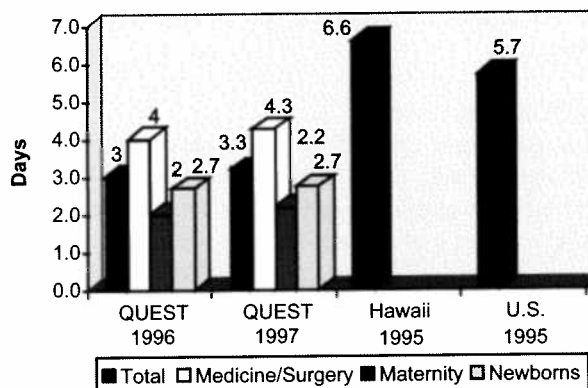
### Why is this important?

The emergency room rate is a critical measure of appropriate utilization of health care because a visit to the emergency room is largely member initiated, and emergency room costs for non-emergency care are much higher than visits to PCPs. Historically, the higher emergency room utilization of Medicaid populations compared with the general public has been attributed to the inadequate access by Medicaid enrollees to other primary care options. By providing education to patients so that they will utilize emergency room services more appropriately and by improving access to primary care, managed care plans should be able to bring down emergency room rates.

### What was measured?

This HEDIS measurement reports the total number of QUEST emergency room visits which did not result in inpatient stays. Each

**Chart 6**  
**Inpatient Average Length of Stay**



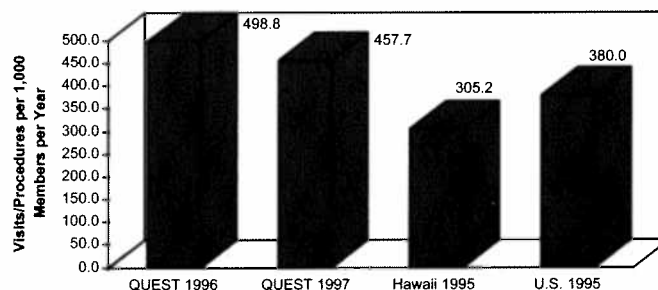
Source: Med-QUEST.

visit is counted once, regardless of the intensity of care required or the length of time spent.

### How did QUEST perform?

Compared with the previous fiscal year, QUEST showed improvement. The total number of emergency room visits and the rate of emergency room utilization had both decreased. In fiscal 1997, the QUEST emergency room rate was 457.7 per 1,000 members. This rate is higher than the last available 1995 rates of 305.2 per 1,000 population statewide and the national rate of 380 per 1,000 population. We believe the emergency room rate for QUEST will decrease further in future as QUEST members become better educated on appropriate use of emergency room services and how to better access services through PCPs.

**Chart 7**  
**Emergency Room Visits**



Source: Med-QUEST and AARP.

## Live Births

### Why is this important?

Medicaid has traditionally been a major payer for deliveries and newborn care. In the late 1980s, the federal government encouraged states to expand income eligibility for pregnant women and newborns because of studies which demonstrated savings of at least \$3 in direct care for each dollar spent on care given to pregnant women. Thus, this HEDIS measure is important because it enumerates the deliveries covered by QUEST and the general health of the newborns after delivery.

### What was measured?

The total number of live births (including separate counts of well newborns and complex newborns), the number of inpatient hospital days, and the average length of stay for women of different ages were reported.

### How did QUEST perform?

The total number of QUEST deliveries resulting in live births decreased from 4,916 in fiscal 1996 to 4,065 in fiscal 1997. However, the average length of hospital stays for well newborns increased slightly from 1.44 days to 1.74 days, while that for complex cases decreased from 16.46 days to 15.46 days. We feel that the decrease in births can be explained by the decrease in QUEST enrollment. The increase in average length of stay for well newborns is consistent with the QUEST policy of allowing physicians and families to determine how long a healthy newborn and mother should remain in hospital.

## Mental Health and Chemical Dependency Services

### Why is this important?

Utilization of mental health and chemical dependency services is important because it is an indirect measure of a QUEST member's ability to access these services. Beyond that, it measures the adequacy of the provider network established by a QUEST plan to provide appropriate mental health and chemical dependency services.

### What was measured?

The utilization of mental health/chemical dependency services by age and sex was measured. The services are grouped into the following general categories—(1) members receiving any service; (2) inpatient hospital services; (3) day/night services, and (4) ambulatory services.

### How did QUEST perform?

The actual number of mental health services provided decreased 9.6 percent between fiscal 1996 and fiscal 1997. Chart 8 shows the decrease was less significant as a percentage of members receiving services across the different categories of services. This is consistent with the decrease in overall QUEST enrollment count of six (6) percent. For chemical dependency services, the actual number of services dropped four (4) percent but the percentage of members who had received these services by different categories remained essentially unchanged.

In addition to the decrease in QUEST membership, the following factors should be considered in evaluating the decline in actual number of mental health and chemical dependency services:

- The benefit package for mental health and chemical dependency services was unlimited for the first eight (8) months of fiscal 1996 but limited to 30 inpatient hospital days and 24 hours of outpatient services in fiscal 1997;
- One QUEST plan reported encounters for 11 months instead of 12 months for fiscal 1997, thus the actual number of services provided should be higher;

# Congestive Heart Failure

American Heart Association<sup>SM</sup>  
Fighting Heart Disease  
and Stroke



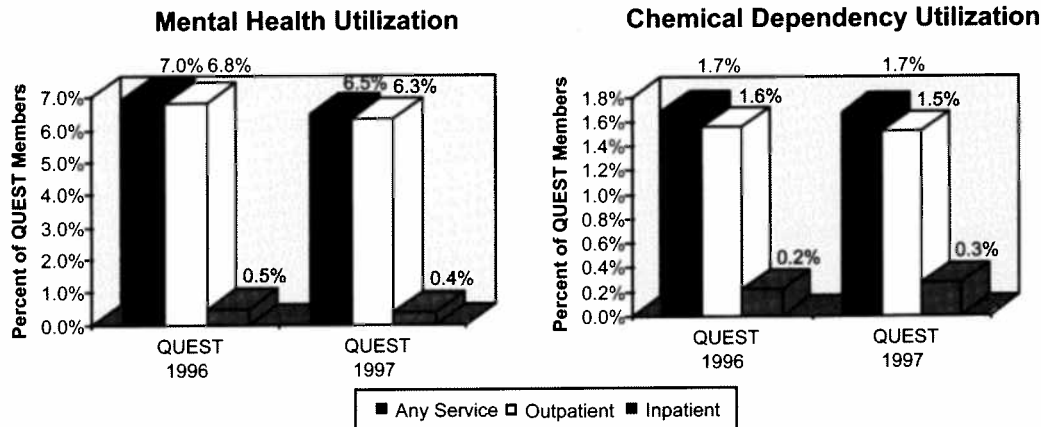
The American Heart Association says congestive heart failure (CHF) starts with the inability of the heart to pump out all of the blood that returns to it. The result:

- CHF is the most frequent cause of hospitalization for people 65 and older
- 50% of CHF patients die within 5 years of diagnosis
- From 1979 to 1993, CHF deaths increased almost 110 percent



©1997, American Heart Association

Chart 8



Source: Med-QUEST.

- The processing of enrollment into the behavioral managed care plan for the seriously mentally ill (SMI) adults improved. Therefore, mental health services used by QUEST members in most need of mental health services were not being provided and reported by the QUEST plans. Instead, these services were being provided by the QUEST behavioral managed care plan for SMI adults.

## Outpatient Drug Utilization

### Why is this important?

This measure assists health plans and the Department to assess how cost effective the QUEST drug benefit is being administered.

### What is being measured?

The total cost of prescription drugs, the average cost per member per month, the total number of prescriptions filled, and the average number of prescriptions filled per year for QUEST members of different ages are measured.

### How did QUEST perform?

The total costs of QUEST drug benefits decreased by more than \$6 million in fiscal 1997 compared with fiscal 1996. Cost per member per month decreased by 13.6 percent from \$13.92 to \$12.03. The total number and average number of prescriptions filled also decreased. Studies have shown that decreases in drug benefits, if done inappropriately, may be accompanied by increases in emergency room visits, mental health services, and inpatient hospital utilization. This did not happen in the QUEST program and thus, we feel the decreases in the drug benefit did not affect access to care, nor did it promote overutilization of more costly care. The inference is that the imposition of managed care provided needed control on drug utilization without denying access.

## Low Birthweight

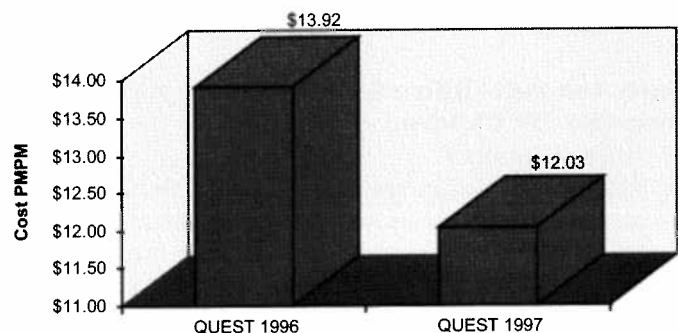
### Why is this important?

In the United States, 263,000 low birthweight infants (weight less than 2,500 grams) are born annually. Low birthweight infants face higher risk for chronic and permanent disabilities, serious medical

complications and illnesses, and death in infancy. Low-income women are typically at higher risk for having low birthweight infants. There are many factors which increase a woman's risk of having a low birthweight infant. Some of the more common factors

Chart 9

## Outpatient Drug Utilization



Source: Med-QUEST.

include smoking, poor nutrition, and chronic medical conditions. It is widely felt by the medical profession that the incidence of low birthweight can be decreased by improving access to appropriate prenatal care.

### What was measured?

The percentage of low birthweight (less than 2,500 grams) infants born during the fiscal year was measured using hospital discharge data or birth certificate data.

### How did QUEST perform?

Although the number of low birthweight babies crept up slightly from fiscal 1996 to fiscal 1997, the QUEST rate is still very good and do not indicate that QUEST pregnant women have a higher rate of low birthweight infants compared to their peers in the state. Chart 10 shows that QUEST's low birthweight rate of 5.8 percent in fiscal 1997 is lower than the overall state's rate of 6.7 percent in 1996. We

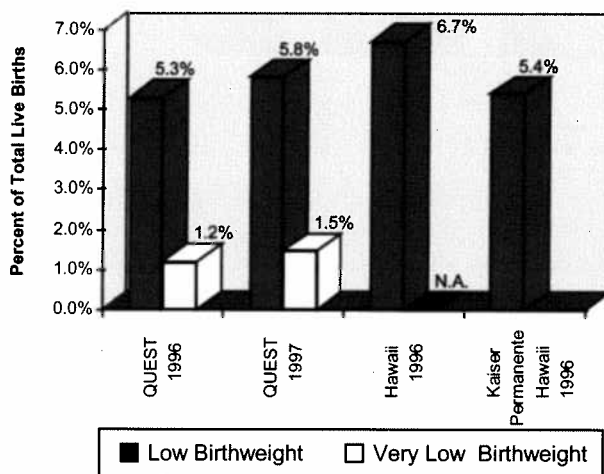


believe QUEST is doing well in this measure and will continue to do so in the future with better monitoring and pre-natal care for members.

The QUEST low birthweight rate of 5.3% in fiscal 1996 was actually better than Kaiser Permanente Hawaii's commercial plan rate of 5.4 percent<sup>1</sup> in calendar year 1996.

Kaiser Permanente Hawaii is ranked as one of the best managed care plans in the United States.

**Chart 10**  
**Low Birthweight Babies**



Source: Med-QUEST & DOH.

## Care Access: Utilization of Primary Care Providers by Children

### Why is this important?

Traditionally, under the fee-for-service Medicaid Program, access to non-emergency care was difficult to obtain. One of the primary reasons Hawaii turned to managed care was to improve access to non-urgent, preventive care. By requiring that each QUEST member have his/her own primary care provider (PCP), the State felt that access to medical care and the general health of Medicaid recipients would be improved. Children comprise about 56 percent of total QUEST membership. Therefore, children's utilization of primary care services through PCPs is an important measure of access.

### What was measured?

The rates of utilization of primary care providers by children are the rates of QUEST children enrolled in one plan for 12 months by the following age categories:

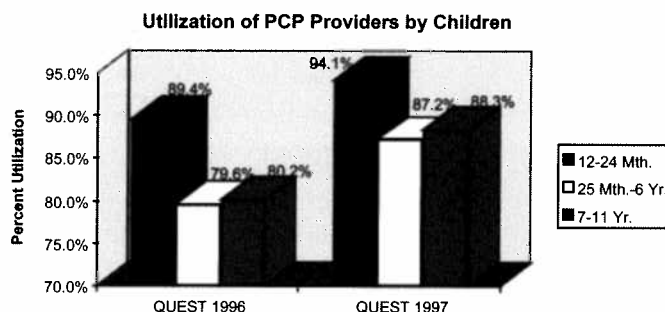
- children aged 12 to 24 months who had at least one visit to a primary care provider (PCP) during the past 12 months;
- children 25 months to 6 years who had at least one visit to a primary care provider (PCP) during the past 12 months; and
- children aged 7 years to 11 years, enrolled in one plan for two years, who had at least one visit to a PCP in the past 12 to 24 months.

<sup>1</sup>See Kaiser Permanente Hawaii's 1997 Quality Report (page 11). Kaiser Permanente Hawaii recently received a four-star rating, and was ranked as the sixth best plan in the U.S. News & World Report's annual appraisal of "America's Top HMOs."

## How did QUEST perform?

In fiscal 1997, the utilization of PCPs by QUEST children continued to improve. In fiscal 1996, QUEST's rates for the different age categories exceeded 80 percent. The average utilization rate for all three age categories was about 83 percent (see Chart 11). In fiscal 1997, rates for the different age categories jumped to the high 80s and the average utilization for all three age groups jumped to 90 percent. The inference here is that QUEST children have excellent access to their PCPs.

**Chart 11**



Source: Med-QUEST.

## Managed Care in Hawaii QUEST

In fiscal 1997, QUEST eligible persons were able to choose from five (5) QUEST medical plans. These QUEST plans are unique with five (5) different approaches to the delivery of medical care and five (5) different structures and organizational experiences. A summary description of the QUEST medical plans is as follows:

- **AlohaCare** is a plan formed by community health centers, and QUEST is its single line of business;
- **HMSA-QUEST** is a plan by a local, non-profit, mutual benefit society associated with Blue Cross/Blue Shield — with many commercial lines of business;
- **Kaiser Permanente QUEST** is a plan by a large, nationally affiliated, non-profit Health Maintenance Organization (HMO);
- **Queen's Hawaii Care** is a plan by a local, non-profit health care system; and
- **Straub Care Quantum** is a plan by a local, for-profit health care system.

**Kaiser Permanente QUEST** and **Straub Care Quantum** can be described as "closed panel" health plans because the care they provide is largely performed by their staff physicians in their own clinics and facilities. **AlohaCare**, **HMSA-QUEST**, and **Queen's Hawaii Care** are "open panel" health plans which contract with health care providers to provide care at various sites, largely, the providers' offices and facilities.

Although each QUEST health plan operates differently, all of the plans utilize managed care concepts in the provision of health care to QUEST members. Four (4) key components which are critical to the delivery of care in managed care and how these programs are used by QUEST health plans will be briefly described.



# AZELEX<sup>®</sup>

(AZELAIC ACID CREAM) 20%

For Dermatologic Use Only    Not for Ophthalmic Use

**DESCRIPTION:** AZELEX<sup>®</sup> (azelaic acid cream) 20% contains azelaic acid, a naturally occurring saturated dicarboxylic acid. Structural Formula:  $\text{HOOC}-(\text{CH}_2)_7-\text{COOH}$ . Chemical Name: 1,7-heptanedicarboxylic acid. Empirical Formula:  $\text{C}_9\text{H}_{16}\text{O}_4$ . Molecular Weight: 188.22. **Active Ingredient:** Each gram of AZELEX<sup>®</sup> contains azelaic acid 0.2 gm (20% w/w). **Inactive Ingredients:** cetearyl octanoate, glycerin, glyceryl stearate and cetearyl alcohol and cetyl palmitate and cocoglycerides, PEG-5 glyceryl stearate, propylene glycol and purified water. Benzoic acid is present as a preservative. **CLINICAL PHARMACOLOGY:** The exact mechanism of action of azelaic acid is not known. The following *in vitro* data are available, but their clinical significance is unknown. Azelaic acid has been shown to possess antimicrobial activity against *Propionibacterium acnes* and *Staphylococcus epidermidis*. The antimicrobial action may be attributable to inhibition of microbial cellular protein synthesis. A normalization of keratinization leading to an anticomedomal effect of azelaic acid may also contribute to its clinical activity. Electron microscopic and immunohistochemical evaluation of skin biopsies from human subjects treated with AZELEX<sup>®</sup> demonstrated a reduction in the thickness of the stratum corneum, a reduction in number and size of keratohyalin granules, and a reduction in the amount and distribution of filaggrin (a protein component of keratohyalin) in epidermal layers. This is suggestive of the ability to decrease microcomedo formation. **Pharmacokinetics:** Following a single application of AZELEX<sup>®</sup> to human skin *in vitro*, azelaic acid penetrates into the stratum corneum (approximately 3 to 5% of the applied dose) and other viable skin layers (up to 10% of the dose is found in the epidermis and dermis). Negligible cutaneous metabolism occurs after topical application. Approximately 4% of the topically applied azelaic acid is systemically absorbed. Azelaic acid is mainly excreted unchanged in the urine but undergoes some  $\beta$ -oxidation to shorter chain dicarboxylic acids. The observed half-lives in healthy subjects are approximately 45 minutes after oral dosing and 12 hours after topical dosing, indicating percutaneous absorption rate-limited kinetics. Azelaic acid is a dietary constituent (whole grain cereals and animal products), and can be formed endogenously from longer-chain dicarboxylic acids, metabolism of oleic acid, and  $\omega$ -oxidation of monocarboxylic acids. Endogenous plasma concentration (20 to 80 ng/mL) and daily urinary excretion (4 to 28 mg) of azelaic acid are highly dependent on dietary intake. After topical treatment with AZELEX<sup>®</sup> in humans, plasma concentration and urinary excretion of azelaic acid are not significantly different from baseline levels. **INDICATIONS AND USAGE:** AZELEX<sup>®</sup> is indicated for the topical treatment of mild-to-moderate inflammatory acne vulgaris. **CONTRAINDICATIONS:** AZELEX<sup>®</sup> is contraindicated in individuals who have shown hypersensitivity to any of its components. **WARNINGS:** AZELEX<sup>®</sup> is for dermatologic use only and not for ophthalmic use. There have been isolated reports of hypopigmentation after use of azelaic acid. Since azelaic acid has not been well studied in patients with dark complexions, these patients should be monitored for early signs of hypopigmentation. **PRECAUTIONS: General:** If sensitivity or severe irritation develop with the use of AZELEX<sup>®</sup>, treatment should be discontinued and appropriate therapy instituted. **Information for patients:** Patients should be told: 1. To use AZELEX<sup>®</sup> for the full prescribed treatment period. 2. To avoid the use of occlusive dressings or wrappings. 3. To keep AZELEX<sup>®</sup> away from the mouth, eyes and other mucous membranes. If it does come in contact with the eyes, they should wash their eyes with large amounts of water and consult a physician if eye irritation persists. 4. If they have dark complexions, to report abnormal changes in skin color to their physician. 5. Due in part to the low pH of azelaic acid, temporary skin irritation (pruritus, burning, or stinging) may occur when AZELEX<sup>®</sup> is applied to broken or inflamed skin, usually at the start of treatment. However, this irritation commonly subsides if treatment is continued. If it continues, AZELEX<sup>®</sup> should be applied only once-a-day, or the treatment should be stopped until these effects have subsided. If troublesome irritation persists, use should be discontinued, and patients should consult their physician. (See ADVERSE REACTIONS.) **Carcinogenesis, mutagenesis, impairment of fertility:** Azelaic acid is a human dietary component of a simple molecular structure that does not suggest carcinogenic potential, and it does not belong to a class of drugs for which there is a concern about carcinogenicity. Therefore, animal studies to evaluate carcinogenic potential with AZELEX<sup>®</sup> Cream were not deemed necessary. In a battery of tests (Ames assay, HGPRT test in Chinese hamster ovary cells, human lymphocyte test, dominant lethal assay in mice), azelaic acid was found to be nonmutagenic. Animal studies have shown no adverse effects on fertility. **Pregnancy: Teratogenic Effects: Pregnancy Category B.** Embryotoxic effects were observed in Segment I and Segment II oral studies with rats receiving 2500 mg/kg/day of azelaic acid. Similar effects were observed in Segment II studies in rabbits given 150 to 500 mg/kg/day and in monkeys given 500 mg/kg/day. The doses at which these effects were noted were all within toxic dose ranges for the dams. No teratogenic effects were observed. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed. **Nursing Mothers:** Equilibrium dialysis was used to assess human milk partitioning *in vitro*. At an azelaic acid concentration of 25  $\mu\text{g/mL}$ , the milk/plasma distribution coefficient was 0.7 and the milk/buffer distribution was 1.0, indicating that passage of drug into maternal milk may occur. Since less than 4% of a topically applied dose is systemically absorbed, the uptake of azelaic acid into maternal milk is not expected to cause a significant change from baseline azelaic acid levels in the milk. However, caution should be exercised when AZELEX<sup>®</sup> is administered to a nursing mother. **Pediatric Use:** Safety and effectiveness in pediatric patients under 12 years of age have not been established. **ADVERSE REACTIONS:** During U.S. clinical trials with AZELEX<sup>®</sup>, adverse reactions were generally mild and transient in nature. The most common adverse reactions occurring in approximately 1-5% of patients were pruritus, burning, stinging and tingling. Other adverse reactions such as erythema, dryness, rash, peeling, irritation, dermatitis, and contact dermatitis were reported in less than 1% of subjects. There is the potential for experiencing allergic reactions with use of AZELEX<sup>®</sup>. In patients using azelaic acid formulations, the following additional adverse experiences have been reported rarely: worsening of asthma, vitiligo depigmentation, small depigmented spots, hypertrichosis, reddening (signs of keratosis pilaris), and exacerbation of recurrent herpes labialis. **DOSE AND ADMINISTRATION:** After the skin is thoroughly washed and patted dry, a thin film of AZELEX<sup>®</sup> should be gently but thoroughly massaged into the affected areas twice daily, in the morning and evening. The hands should be washed following application. The duration of use of AZELEX<sup>®</sup> can vary from person to person and depends on the severity of the acne. Improvement of the condition occurs in the majority of patients with inflammatory lesions within four weeks. **HOW SUPPLIED:** AZELEX<sup>®</sup> is supplied in collapsible tubes in a 30 gm size: 30 g - NDC 0023-8694-30. **Note:** Protect from freezing. Store between 15°-30°C (59°-86°F). **Caution:** Federal (U.S.A.) law prohibits dispensing without a prescription. Distributed under license, U.S. Patent No. 4,386,104.

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## Case Management

### What is it?

Case Management is a process to identify and assist members with complex or chronic conditions. This includes helping members who have difficulties in obtaining needed medical care to gain access and to obtain the appropriate care.

### How do QUEST plans perform case management?

All of the plans have systems which identify members who may need case management/care coordination. Although plans are free to determine which recipients need case management, generally, plans priorities for case management are similar, and include high risk pregnancies, lengthy hospitalizations, and chronic diseases such as asthma or diabetes.

The two closed panel plans perform case management services using plan staff. The three open panel plans also perform most case management activities using plan staff. In addition, AlohaCare uses case management services of the community health centers. HMSA-QUEST contracts with the community health centers and other community agencies for specific outreach services such as transportation, translation and non-compliance counseling. Queen's Hawaii Care has contracted for patient education and case management to assist providers on a neighbor island in an Asthma Management Program.

## Utilization Management

### What is it?

Utilization management is the process which plans use to determine the appropriateness and need for medical care. Plans evaluate utilization patterns (including under-utilization and over-utilization) through data analysis and provider profiling. Among the specific programs used to make decisions of appropriateness and need are prior authorization, concurrent review, and retrospective review.

### How do QUEST plans perform utilization management?

Although plans differ in the specific services/situations which require prior authorization, all plans utilize prior authorization in some form. For inpatient hospital, concurrent and retrospective reviews, all five (5) plans employ national standard criteria such as InterQual Severity of Illness/Intensity of Service, Milliman and Robertson's Length of Stay Guidelines and/or Medical Care Appropriateness Protocol (MCAP) as part of their utilization review protocols.

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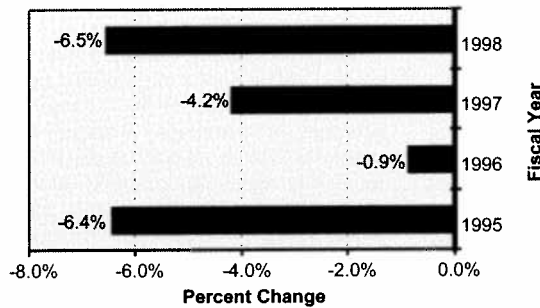
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Chart 12

Change in Per Capita QUEST Cost\*



\*TANF and GA Categories Only. Costs include projected costs for adult dental care after February 1996.

Source: Med-QUEST.

## New Member Orientation/Education

### What is it?

New member orientation/education are the activities performed by plans to educate and orient new members on the types of covered services and how to access those care services.

### How do QUEST plans do this?

All QUEST plans send welcome packets of information including a member handbook, list of providers, summary of plan benefits, how a member can access care, and member rights and responsibilities. In addition, **HMSA-QUEST** conducts optional member orientation sessions; **Kaiser Permanente QUEST** has case management assistants and visiting nurses who work directly with new enrollees; **Straub Care Quantum** includes in its welcome packet the (800) number of its HMO Services personnel who can answer questions and assist members in obtaining services; **Queen's Hawaii Care** issues quarterly member newsletters which features educational material as well as updated plan member services; **AlohaCare** uses its Member Services department to reinforce the programs in the Member Handbook. Also, all plans send out Early and Periodic Screening, Diagnosis and Treatment (EPSDT) information. (Under Federal EPSDT rules children are entitled to a broader range of Medicaid services than adults and it is required that parents receive information explaining EPSDT benefits).

## Standards for Waiting Times

### What are these?

Each plan sets its own standards for acceptable waiting times for the following:

1. **Emergency care;**
2. **Urgent routine illness;** and
3. **Preventive and non-urgent routine care.**

### What are the standards used by the plans and how are they being monitored?

Although each plan sets its own standards for waiting times, all plans are generally in agreement that the standard waiting time are as follows:

1. **Emergency care** is immediately (within the same day);
2. **Urgent routine illness** is from 24 to 48 hours; and
3. **Preventive and non-urgent routine care** is from 24-48 hours to 6 weeks.

Plans monitor these standards by on-site visits to providers (**Queen's Hawaii Care and HMSA-QUEST**), member surveys and appointment accessibility surveys (**HMSA-QUEST**), waiting time surveys (**Straub Care Quantum**), actual measurements (**Kaiser Permanente QUEST**), and member education on appropriate use of services (**AlohaCare**).

## Quest Capitation History

When QUEST was initiated in August 1994, the premium savings associated with each enrolled member was approximately 6.4 percent lower than payments under the previous fee-for-service system. Chart 12 shows that more premium savings have been realized subsequently in fiscal 1996, fiscal 1997 and fiscal 1998, without compromising quality health care services to the QUEST population. Selected clinical measures reported under HEDIS guidelines have supported this contention. We believe much of the success is attributable to productivity gains and continuous quality improvements in both clinical and administrative areas of participating QUEST plans.

## Towards the Millenium

The member's freedom to choose a health plan has always been an important consideration in QUEST. As participating QUEST plans continue to mature in utilizing managed care concepts in the provision of services to the Medicaid population, they are continuously driven to improving and upgrading their services. The plans are fully aware of their similar product offerings, and that quality of service is the key determinant to winning consumer confidence. QUEST members are the primary beneficiaries of this competitive structure established by the State. The DHS, through its Med-QUEST Division will continue in its efforts to monitor the quality of services offered by participating plans. The MQD is also exploring innovative ways to improve the delivery of health care services to the Medicaid population in Hawaii, currently not in QUEST.

As we move closer to the millennium, QUEST is working diligently to extend managed care services to more Medicaid recipients. We believe that managed care can effectively deliver to the Medicaid population, greater access to non-urgent and preventive health care services, and improvement in their general health status. The offering of long-term care services through a managed care setting is currently under consideration. Certain segments of Hawaii's community view this as a viable, "high-value" alternative to the existing fee-for-service system. With each existing, and potential service offering, consumer protection will continue to remain a key pillar of QUEST's efforts. And towards achieving this goal, QUEST will continue to use HEDIS measures to define quality of care services in a tangible, quantitative, and meaningful manner.